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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,680

04/13/2006

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20277 7590 07/17/2008
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EXAMINER

ZHANG, YUANDA

ART UNIT

PAPER NUMBER

2828

MAIL DATE

DELIVERY MODE

07/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,680	Applicant(s) WATANABE ET AL.	
	Examiner YUANDA ZHANG	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/23/08 have been fully considered but they are not persuasive.
2. In response to Applicant's argument of claim 1, the Applicant has argued that claim 1 cannot be anticipated by the prior art due to a misinterpretation in view of an ambiguous disclosure. The Examiner believes that the paragraph clearly suggests with no ambiguity that "a terminal 22 is provided passing through the base 1 and connected by a lead 23 to he above first and second diodes (LD1 and LD2) or to the PIN diode 12." This statement clearly shows that the wires can be either connected to the laser diodes OR to the PIN diode. The fact that the Applicant chooses to interpret is to mean the lead to be connected to the PIN diode does not automatically make the Examiner's interpretation wrong. Therefore, the limitation of "wherein the first and second electrode pads are formed to extend farther behind the two-beam semiconductor laser element, and are wired-bonded behind the two-beam semiconductor laser element" are anticipated by the prior art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe (US PG Pub 2002/0021725 A1).

5. In re claim 1, Abe discloses a two-beam semiconductor laser device comprising: a two-beam semiconductor element (laser diode 14a, shown in figure 7) having a first and a second semiconductor laser elements (LD 1 and LD2) that can be driven independently and that are formed integrally on a substrate (30); and a submount (13) having, mounted on a front part thereof, the two-beam semiconductor laser element with a light-emitting face (active layer 33 for LD1 and active layer 38 for LD2) thereof directed forward and having a first and a second electrode pads (13a) connected to electrodes of the first and second semiconductor laser element by being kept in contact therewith, wherein the first and second electrode pads are formed to extend farther behind the two-beam semiconductor laser element (electrode 13a has been extended behind the laser diode 14a, shown in figure 8A), and are wire-bonded behind the two-beam semiconductor laser element (shown in figure 8A) (paragraph [0131] – paragraph [137]).

6. In re claim 2, Abe discloses wherein the first and second electrode pads are wire-bonded at a rear end of the submount (see figure 8A).

7. In re claim 4, Abe discloses wherein a lateral length of the submount is 400 μm or more but 700 μm or less (Figure 8B has disclosed that the two emitting point is 100 μm apart which is roughly less $\frac{1}{4}$ of the lateral length or width of the submount; therefore, the submount is more than about 400 μm).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US PG Pub 2002/0021725 A1).

10. In re claim 3, Abe has disclosed the claimed invention except wherein a distance from the rear end of the two-beam semiconductor laser element to a position where the first and second electrode pads are wire-bonded is 300 μm or shorter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the distance between the electrode pad that are wire-bonded and rear end of the two-bam semiconductor laser element of Abe with a range of 300 μm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 MPEP 2144.05 (II-A)

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US PG Pub 2002/0021725 A1) in view of Honda et al (US Patent 6,885,076 B2).

1. In re claim 5, Abe has disclosed the claimed invention above except a package composed of a frame and a resin member. However, Honda et al disclose a semiconductor laser package composed of individual lead leads (lead frame 2) are put

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together by the insulating resin member (5) as to form a lead frame package (col. 4 lines 19-26). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the semiconductor laser device of Abe with a package composed of a frame and a resin member as taught by Honda et al in order to obtain protection for the laser element.

12. In re claim 6, Honda et al disclose wherein the two-beam semiconductor laser device is built as a three-terminal two-beam semiconductor laser device having three terminals (lead frame 2 containing three terminals 7, 6b and 8).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUANDA ZHANG whose telephone number is

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(571)270-1439. The examiner can normally be reached on Monday-Thursday, 7:30am-6:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YZ/

07/14/08

/Minsun Harvey/

Supervisory Patent Examiner, Art Unit 2828